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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,927	11/16/2000	Takashi Yamamoto	001527	3205
23850	7590	01/12/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			RODEE, CHRISTOPHER D	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicati n No.</b> 09/712,927	<b>Applicant(s)</b> YAMAMOTO ET AL.	
	<b>Examin r</b> Christopher D RoDee	<b>Art Unit</b> 1756	

-- Th MAILING DATE of this communication appears on th cover sheet with the correspond nce address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2003 .
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-14, 16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-14, 16, 19, and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1 December 2003 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8-14, 16, 19, and 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claimed invention has been amended in independent claims 1 and 9 to state that the external additive comprises inorganic fine particles having a mean particle diameter of 30 to 100 nm and fine particles having an opposite charge polarity to that of the inorganic fine particles. Basis for this amendment must be present in the application as filed.

The specification on page 7 states that the external particles comprise at least particles having a mean particle diameter of 30 to 100 nm and particles having smaller particle diameters

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than the particles having a mean particle diameter of 30 to 100 nm. Additionally this portion of the specification states that the charge amount of at least one kind of the external additives is a different polarity from the other charge amounts. It is unclear what this passage means because it compares the polarity of charge amounts not the polarity of the particles, *per se*. The specification further describes the external additives on page 22 as being inorganic. Specific compositions, specific surface areas, and particle diameters of these particles are discussed. On page 23 the specification describes the polymeric fine particles as effective with the inorganic fine particles. The Examples present various toners for use in the method of the instant application as well as some comparative examples. These examples use a single inorganic additive (Toners A-C), a combination of specific inorganic additives (Toners D & G), a combination of specific inorganic and polymeric additives (Toners E and H), and a combination of two specific inorganic additives and polymeric additives (Toner F).

As discussed briefly above, Toner E uses a combination of 7 nm hydrophobic silica and positive polarity particles. The charge on the silica is not described and the size of the silica is outside the scope of the 30 nm to 100 nm range. Thus, this example cannot be used as basis for the claims because its inorganic particle is outside the scope of the claims as presented.

Toner F requires three components: a 16 nm hydrophobic silica, a 40 nm hydrophobic silica, and a positive polarity particle of unspecified size. This example cannot provide basis for the instant claims because the polarity of the silica is not described and because the claims (with the exception of claims 2 and 10) do not have three components present. Further, the instant claims include within their scope the fine particles having the opposite charge to be negatively charged. The only polarity specified in the example is a positive charge.

Toner H has a silica corresponding to the inorganic fine particle of the instant claims with a size of 40 nm. The additive particle is positive polarity particle, but the polarity of the silica is

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not specified. Thus it is unclear if the silica and additive particle have opposite polarity. Further, the instant claims include within their scope fine particles having the opposite charge to be negatively charged. The only polarity specified for these particles in the example is a positive charge. The composition of the positive polarity particles in Toners E, F, and H are not described.

The specification on page 30 does not describe the opposite polarity as being with respect to the inorganic fine particles. It appears from Table 1 that the toner has a negative charge and the additive "fine particles" have a positive charge. Thus the opposite charge of the fine particles in the specification is with respect to the toner and not the inorganic particles. This relationship is also specific as being for a negatively charged toner and positively charged additive particles.

It is apparent that the application as filed does not provide basis for the current claims because the specification does not describe an external additive comprising any particles having an opposite charge to that of the inorganic particles with the inorganic particles having the specified diameters. The specification is particular in its description of the external additive particles combined with particles having a mean particle diameter of 30 to 100 nm. Specifically, these external additive particles must have a smaller diameter than the particles having a mean particle diameter of 30 to 100 nm. This feature was present in original claim 2. The claims as presented permit the added particles to have any size as compared to the particles having a mean particle diameter of 30 to 100 nm. For example, these additives particles could be the same size or larger than the particles having a mean particle diameter of 30 to 100 nm. This combination is without basis in the specification as filed.

The specification as filed does not provide basis for the claims as currently presented because it includes relationships of charge between the inorganic particles and fine particles

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that are not described in the specification, particularly when the inorganic fine particles have a size of from 30 nm to 100 nm.

### ***Conclusion***


The previously applied art rejection is withdrawn based upon applicant's new claim amendments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 571 272-1388. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr  
January 5, 2004

  
CHRISTOPHER RODEE  
PRIMARY EXAMINER